

## ABSTRACT OF THE DISCLOSURE

A mobile client device, such as a wireless mobile or a palm sized personal  
5 digital assistant, is provided with a number of sensors and companion programming  
instructions/circuitry to generate a heart rate reading for a user holding the device.  
The sensors are used to sense blood flow rate of the user. The sensors are  
advantageously disposed in a distributed manner, in a number of locations of the  
mobile client device. The programming instructions/circuitry are used to infer a  
10 holding pattern of the device, and generate the heart rate reading, using a subset of  
the sensed data, based at least in part on the inferred holding pattern.